

**Abstract**

A method and system for self-writing track locations of a data disk in a disk drive in order to reduce overall track runout are disclosed. First set of servo bursts are self-written along a track via a transducer, and repeatable runout correction values for the first  
5 servo bursts are calculated. Then, second servo bursts are self-written along the track via the transducer such that the first and second servo bursts form a plurality of servo sector patterns that define the track centerline, wherein the second servo bursts are positioned using said correction values to essentially compensate for the runout in the first servo bursts and reduce the overall track runout.